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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,512	11/13/2001	Maged E. Beshai	14796ROUS01U	4787
34845	7590	12/05/2005	EXAMINER	
STEUBING MCGUINNESS & MANARAS LLP 125 NAGOG PARK ACTON, MA 01720			BLOUNT, STEVEN	
			ART UNIT	PAPER NUMBER
			2668	

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,512

Applicant(s)

BESHA ET AL.

Examiner

Steven Blount

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 43 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 2, there is no antecedent support for "said time counter".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 6,118,762 to Nomura et al.

With regard to claim 1, Nomura et al teaches generating a burst transfer permit and sending it to a edge node (see col 13 lines 55+) wherein the edge nodes send data bursts based on this (transmission timing period tb) information. See col 13, lines 57+).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,118,762 to Nomura et al.

With regard to claim 2, the star configuration shown in figure 1 is an obvious variation of a star configuration “with a second” core, since it is stated in col 10 lines 5+ that there are 3 ATM switches in core 3.

With regard to claim 3, see col 6 lines 25+.

With regard to claim 4, see the above and note that time period t_b is mentioned in col 13 lines 55+.

With regard to claim 5, see the discussion above with respect to the “permits”.

With regard to claims 6 - 7, see col 6 lines 25+ (burst size), time.

With regard to claim 8, it would have been obvious to one of ordinary skill in the art at the time of the invention to have sent the data simultaneously to the core nodes in order to promote a greater data transfer rate.

With regard to claim 9, it would have been obvious to equalize the delays in order to promote more efficient data transfer between the edge nodes and the core nodes.

With regard to claim 10, see the discussion of timing above.

With regard to claim 11, there would inherently be no conflicts if the information is properly transferred.

7. Claims 12 – 22 are rejected under 35 U.S.C. 103(a) as being obvious over the Applicants Admitted Prior Art (AAPA) in view of U.S. patent 6,118,762 to Nomura et al.

With regard to claim 12, AAPA teaches burst switching (page 2, lines 25+) in an optical network (page 1 lines 12+) and discusses the problem of burst latency on page 4 lines 1+. AAPA does not however teach a solution to this problem to comprise having a scheduler in the core node schedule the burst information to the edge nodes. This is taught in Nomura et al as discussed above. It would have been obvious to one of ordinary skill in the art at the time of the invention to have solved the burst latency discussed in AAPA through the use of scheduling permits, in light of the teachings of Nomura et al in order to increase the proper flow of data in the system.

With regard to claim 13 – 22, see the rejections above.

8. Claims 23 – 35 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,118,762 to Nomura et al.

With regard to claim 23, Nomura et al teaches the invention as discussed above including, importantly, sending a data rate request from the edge nodes to the core node(s). See col 6 lines 28+. While it is not explicitly stated that the “rate of a use time” or the “band information” is expressed in a “bitrate”, the examiner notes that “bitrate” is a typical means for expressing a data rate such as this, and it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a “bitrate” in view of the common knowledge of this fact.

With regard to claim 24 note that it would be obvious to update the bitrate allocation as the circumstances in the network change.

With regard to claims 25 - 27, see col 6 lines 25+.

With regard to claim 28, note the bitrate discussion above.

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With regard to claim 29, the aggregate of information mentioned in col 6 lines 20+ is a service class.

With regard to claim 30, it would be obvious to switch the bursts in the same core node in order to promote a compact switch unit.

With regard to claims 30 – 32, see the rejections above.

With regard to claims 33 – 34, it would have been obvious to set upper and lower limits for burst size in order to increase the data throughput.

With regard to claim 35, the burst delay would limit the burst size.

9. Claims 36 – 39 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,405,257 to Gersht et al in view of U.S. patent 6,944,128 to Nichols.

Gersht et al teach providing maximum and minimum data rates to data flows, and then reserves the peak data rate on each flow. Gersht et al does not however teach that this is done for the size of each burst. Nichols teaches that there is an equivalency between the burst size and rate (see col 9 lines 14+) wherein it would have been obvious to one ordinary skill in the art at the time of the invention to have limited the size of the bursts of Gersht et al in place of the data rate, in light of the teachings of Nichols in order to achieve an optimum burst size.

With regard to claim 37 and 38, the min/max burst duration would be an obvious choice to set the bounds.

With regard to claim 39, it would be obvious to use the burst size as an integer of a segment in order to promote an efficient way to transmit the data.

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10. Claims 40 – 43 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,118,762 to Nomura et al as applied above to claim 1, and further in view of U.S. patent 6,721,271 to Beshai.

Nomura teaches the invention as described above, but does not teach segmenting, null-padding, and sorting the packets. These acts are taught in Beshai in a similar system. See col 6 lines 30+ and col 4 lines 8+. It would have been obvious to one of ordinary skill in the art at the time of the invention to have sorted and segmented the packets of Nomura in light of the teachings of Beshai in order to provide proper flow control for the system.

With regard to claims 42 – 43, it would be obvious to transmit using a multiple of the prescribed data size (by removing null padding if necessary), and transmit at a time using a time counter.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571 - 272 - 3071. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 – 272 - 3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ajit Patel
Primary Examiner

SB

11/9/05